

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/542,704  
Source: PCT  
Date Processed by STIC: 07/28/2005

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 07/28/2005

PATENT APPLICATION: US/10/542,704

TIME: 15:38:36

Input Set : A:\sequence listing ascii.txt

Output Set: N:\CRF4\07282005\J542704.raw

3 <110> APPLICANT: Gardella, Thomas J.  
4 Kronenberg, Henry M.  
5 Potts, John T.  
7 <120> TITLE OF INVENTION: Conformationally Constrained Parathyroid Hormone (PTH)  
Analogues  
8 With Lactam Bridges  
10 <130> FILE REFERENCE: 0609.514PC00  
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/542,704  
C--> 12 <141> CURRENT FILING DATE: 2005-07-20  
12 <160> NUMBER OF SEQ ID NOS: 37  
14 <170> SOFTWARE: PatentIn version 3.2  
16 <210> SEQ ID NO: 1  
17 <211> LENGTH: 14  
18 <212> TYPE: PRT  
19 <213> ORGANISM: Artificial Sequence  
21 <220> FEATURE:  
22 <223> OTHER INFORMATION: Mutated hPTH  
24 <220> FEATURE:  
25 <221> NAME/KEY: MISC\_FEATURE  
26 <222> LOCATION: (1)..(1)  
27 <223> OTHER INFORMATION: Xaa can represent Gly, Ser, Ala or alpha-aminoisobutyric acid  
29 <220> FEATURE:  
30 <221> NAME/KEY: MISC\_FEATURE  
31 <222> LOCATION: (3)..(3)  
32 <223> OTHER INFORMATION: Xaa can represent Ala, Ser, alpha-aminoisobutyric acid  
34 <220> FEATURE:  
35 <221> NAME/KEY: MISC\_FEATURE  
36 <222> LOCATION: (6)..(6)  
37 <223> OTHER INFORMATION: Xaa can represent Asp, Glu or Lys  
39 <220> FEATURE:  
40 <221> NAME/KEY: MISC\_FEATURE  
41 <222> LOCATION: (10)..(10)  
42 <223> OTHER INFORMATION: Xaa can represent Asp, Glu or Lys  
44 <220> FEATURE:  
45 <221> NAME/KEY: MISC\_FEATURE  
46 <222> LOCATION: (11)..(11)  
47 <223> OTHER INFORMATION: Xaa can represent Arg, Leu or Homoarginine  
49 <220> FEATURE:  
50 <221> NAME/KEY: MISC\_FEATURE  
51 <222> LOCATION: (12)..(12)  
52 <223> OTHER INFORMATION: Xaa can represent Ala or Gly  
54 <220> FEATURE:  
55 <221> NAME/KEY: MISC\_FEATURE  
56 <222> LOCATION: (14)..(14)

(Pg-6)

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57 <223> OTHER INFORMATION: Xaa can represent Trp or His
59 <220> FEATURE:
60 <221> NAME/KEY: MOD_RES
61 <222> LOCATION: (14)..(14)
62 <223> OTHER INFORMATION: AMIDATION
64 <400> SEQUENCE: 1
W--> 66 Xaa Val Xaa Glu Ile Xaa Leu Met His Xaa Xaa Xaa Lys Xaa
67 1          5          10
70 <210> SEQ ID NO: 2
71 <211> LENGTH: 12
72 <212> TYPE: PRT
73 <213> ORGANISM: Artificial Sequence
75 <220> FEATURE:
76 <223> OTHER INFORMATION: Mutated hPTH
79 <220> FEATURE:
80 <221> NAME/KEY: MISC_FEATURE
81 <222> LOCATION: (6)..(6)
82 <223> OTHER INFORMATION: Xaa can represent Asp, Glu or Lys
84 <220> FEATURE:
85 <221> NAME/KEY: MISC_FEATURE
86 <222> LOCATION: (9)..(9)
87 <223> OTHER INFORMATION: Xaa represents homoarginine
89 <220> FEATURE:
90 <221> NAME/KEY: MOD_RES
91 <222> LOCATION: (12)..(12)
92 <223> OTHER INFORMATION: AMIDATION
94 <400> SEQUENCE: 2
W--> 96 Ala Val Ala Glu Ile Xaa Leu Met Xaa Ala Lys Trp
97 1          5          10
100 <210> SEQ ID NO: 3
101 <211> LENGTH: 14
102 <212> TYPE: PRT
103 <213> ORGANISM: Artificial Sequence
105 <220> FEATURE:
106 <223> OTHER INFORMATION: [(Glu-6, Lys-10)lac.]PTH(1-14)
109 <220> FEATURE:
110 <221> NAME/KEY: MISC_FEATURE
111 <222> LOCATION: (1)..(14)
112 <223> OTHER INFORMATION: Sequence is cyclized via a 6-10 lactam bridge
114 <220> FEATURE:
115 <221> NAME/KEY: MISC_FEATURE
116 <222> LOCATION: (11)..(11)
117 <223> OTHER INFORMATION: Xaa represents homoarginine
119 <220> FEATURE:
120 <221> NAME/KEY: MOD_RES
121 <222> LOCATION: (14)..(14)
122 <223> OTHER INFORMATION: AMIDATION
124 <400> SEQUENCE: 3
W--> 126 Ala Val Ala Glu Ile Glu Leu Met His Lys Xaa Ala Lys Trp

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Input Set : A:\sequence listing ascii.txt

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127 1          5          10
130 <210> SEQ ID NO: 4
131 <211> LENGTH: 14
132 <212> TYPE: PRT
133 <213> ORGANISM: Artificial Sequence
135 <220> FEATURE:
136 <223> OTHER INFORMATION: [(Lys-6, Lys-10)lac.]PTH(1-14)
139 <220> FEATURE:
140 <221> NAME/KEY: MISC_FEATURE
141 <222> LOCATION: (1)..(14)
142 <223> OTHER INFORMATION: Sequence is cyclized via 6-10 lactam bridge
144 <220> FEATURE:
145 <221> NAME/KEY: MOD_RES
146 <222> LOCATION: (14)..(14)
147 <223> OTHER INFORMATION: AMIDATION
149 <400> SEQUENCE: 4
W--> 151 Ala Val Ala Glu Ile Lys Leu Met His Lys Xaa Ala Lys Trp
152 1          5          10
155 <210> SEQ ID NO: 5
156 <211> LENGTH: 34
157 <212> TYPE: PRT
158 <213> ORGANISM: Rattus sp.
161 <220> FEATURE:
162 <221> NAME/KEY: MOD_RES
163 <222> LOCATION: (34)..(34)
164 <223> OTHER INFORMATION: AMIDATION
166 <400> SEQUENCE: 5
168 Ala Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Ala
169 1          5          10          15
172 Ser Val Glu Arg Met Gln Trp Leu Arg Lys Lys Leu Gln Asp Val His
173          20          25          30
176 Asn Phe
180 <210> SEQ ID NO: 6
181 <211> LENGTH: 34
182 <212> TYPE: PRT
183 <213> ORGANISM: Homo sapiens
186 <220> FEATURE:
187 <221> NAME/KEY: MOD_RES
188 <222> LOCATION: (34)..(34)
189 <223> OTHER INFORMATION: AMIDATION
191 <400> SEQUENCE: 6
193 Ser Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Asn
194 1          5          10          15
197 Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His
198          20          25          30
201 Asn Phe
205 <210> SEQ ID NO: 7
206 <211> LENGTH: 34
207 <212> TYPE: PRT

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208 <213> ORGANISM: Artificial Sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: Mutated hPTH
214 <220> FEATURE:
215 <221> NAME/KEY: MISC_FEATURE
216 <222> LOCATION: (6)..(6)
217 <223> OTHER INFORMATION: Xaa can represent Ala, Glu or Gln
219 <220> FEATURE:
220 <221> NAME/KEY: MISC_FEATURE
221 <222> LOCATION: (10)..(10)
222 <223> OTHER INFORMATION: Xaa can represent Ala, Glu or Gln
224 <220> FEATURE:
225 <221> NAME/KEY: MOD_RES
226 <222> LOCATION: (34)..(34)
227 <223> OTHER INFORMATION: AMIDATION
229 <400> SEQUENCE: 7
W--> 231 Ser Val Ser Glu Ile Xaa Leu Met His Xaa Leu Gly Lys His Leu Asn
      232 1          5          10          15
      235 Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His
      236          20          25          30
      239 Asn Tyr
243 <210> SEQ ID NO: 8
244 <211> LENGTH: 11
245 <212> TYPE: PRT
246 <213> ORGANISM: Artificial Sequence
248 <220> FEATURE:
249 <223> OTHER INFORMATION: Mutated hPTH(1-11)
252 <220> FEATURE:
253 <221> NAME/KEY: MOD_RES
254 <222> LOCATION: (11)..(11)
255 <223> OTHER INFORMATION: AMIDATION
257 <400> SEQUENCE: 8
259 Ala Val Ala Glu Ile Gln Leu Met His Gln Arg
260 1          5          10
263 <210> SEQ ID NO: 9
264 <211> LENGTH: 14
265 <212> TYPE: PRT
266 <213> ORGANISM: Artificial Sequence
268 <220> FEATURE:
269 <223> OTHER INFORMATION: [Aib-1,3]PTH(1-14)
272 <220> FEATURE:
273 <221> NAME/KEY: MISC_FEATURE
274 <222> LOCATION: (1)..(1)
275 <223> OTHER INFORMATION: Xaa represents alpha-aminoisobutyric acid
277 <220> FEATURE:
278 <221> NAME/KEY: MISC_FEATURE
279 <222> LOCATION: (3)..(3)
280 <223> OTHER INFORMATION: Xaa represents alpha-aminoisobutyric acid
282 <220> FEATURE:

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283 <221> NAME/KEY: MISC_FEATURE
284 <222> LOCATION: (11)..(11)
285 <223> OTHER INFORMATION: Xaa represents homoarginine
287 <220> FEATURE:
288 <221> NAME/KEY: MOD_RES
289 <222> LOCATION: (14)..(14)
290 <223> OTHER INFORMATION: AMIDATION
292 <400> SEQUENCE: 9
W--> 294 Xaa Val Xaa Glu Ile Gln Leu Met His Gln Xaa Ala Lys Trp
      295 1          5          10
298 <210> SEQ ID NO: 10
299 <211> LENGTH: 34
300 <212> TYPE: PRT
301 <213> ORGANISM: Artificial Sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: ([Tyr-34]hPTH(1-34)amide)
307 <220> FEATURE:
308 <221> NAME/KEY: MOD_RES
309 <222> LOCATION: (34)..(34)
310 <223> OTHER INFORMATION: AMIDATION
312 <400> SEQUENCE: 10
314 Ser Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Asn
315 1          5          10          15
318 Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His
319          20          25          30
322 Asn Tyr
326 <210> SEQ ID NO: 11
327 <211> LENGTH: 14
328 <212> TYPE: PRT
329 <213> ORGANISM: Artificial Sequence
331 <220> FEATURE:
332 <223> OTHER INFORMATION: [Ala-1,3,12, Gln-10, Har-11, Trp-14]PTH(1-14)amide
335 <220> FEATURE:
336 <221> NAME/KEY: MISC_FEATURE
337 <222> LOCATION: (11)..(11)
338 <223> OTHER INFORMATION: Xaa represents homoarginine
340 <220> FEATURE:
341 <221> NAME/KEY: MOD_RES
342 <222> LOCATION: (14)..(14)
343 <223> OTHER INFORMATION: AMIDATION
345 <400> SEQUENCE: 11
W--> 347 Ala Val Ala Glu Ile Gln Leu Met His Gln Xaa Ala Lys Trp
      348 1          5          10
351 <210> SEQ ID NO: 12
352 <211> LENGTH: 11
353 <212> TYPE: PRT
354 <213> ORGANISM: Artificial Sequence
356 <220> FEATURE:
357 <223> OTHER INFORMATION: [Ala-1,3, Gln-10, Har-11]PTH(1-11)amide

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/542,704

DATE: 07/28/2005  
TIME: 15:38:37

Input Set : A:\sequence listing ascii.txt  
Output Set: N:\CRF4\07282005\J542704.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,3,6,10,11,12,14  
Seq#:2; Xaa Pos. 6,9  
Seq#:3; Xaa Pos. 11  
Seq#:4; Xaa Pos. 11  
Seq#:7; Xaa Pos. 6,10  
Seq#:9; Xaa Pos. 1,3,11  
Seq#:11; Xaa Pos. 11  
Seq#:12; Xaa Pos. 11  
Seq#:14; Xaa Pos. 11  
Seq#:15; Xaa Pos. 1,3,11  
Seq#:16; Xaa Pos. 11  
Seq#:17; Xaa Pos. 1,3,11  
Seq#:21; Xaa Pos. 1,3,11  
Seq#:22; Xaa Pos. 1,3,11  
Seq#:23; Xaa Pos. 1,3,11  
Seq#:24; Xaa Pos. 11  
Seq#:25; Xaa Pos. 11  
Seq#:26; Xaa Pos. 11  
Seq#:30; Xaa Pos. 11  
Seq#:31; Xaa Pos. 1,3,6,10,11,12,14  
Seq#:32; Xaa Pos. 1,3,6,10,11,12,14  
Seq#:33; Xaa Pos. 1,3,6,10,11,12  
Seq#:34; Xaa Pos. 1,3,6,10,11,12  
Seq#:35; Xaa Pos. 1,3,6,10,11

## VERIFICATION SUMMARY

DATE: 07/28/2005

PATENT APPLICATION: US/10/542,704

TIME: 15:38:37

Input Set : A:\sequence listing ascii.txt

Output Set: N:\CRF4\07282005\J542704.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No  
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:66 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:347 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
L:372 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
L:434 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0  
L:473 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
L:502 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0  
L:541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0  
L:640 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0  
L:675 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0  
L:710 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0  
L:735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0  
L:760 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0  
L:790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0  
L:900 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0  
L:959 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0  
L:1022 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0  
L:1076 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0  
L:1126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0  
L:1171 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0